

Fig. 1

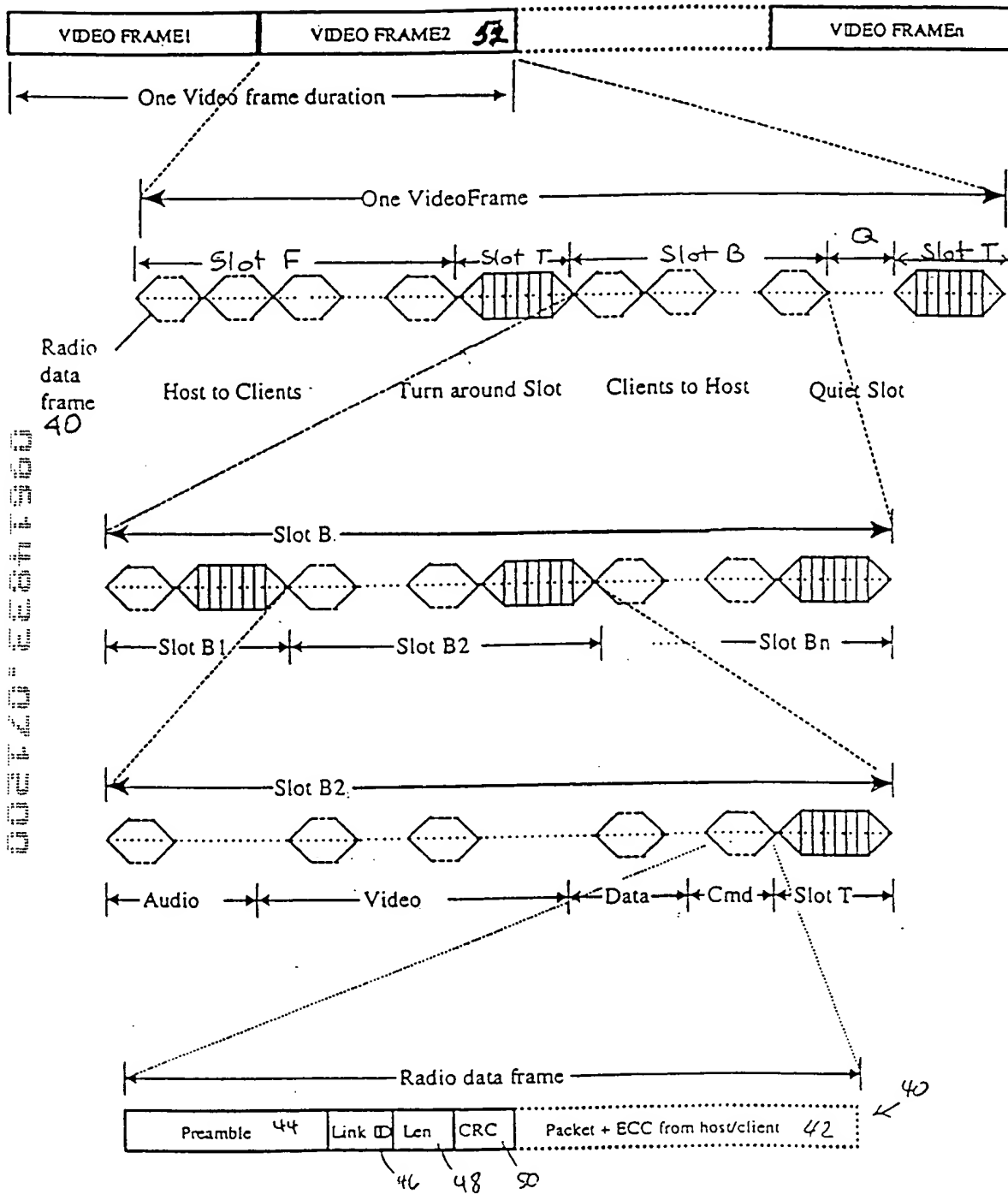
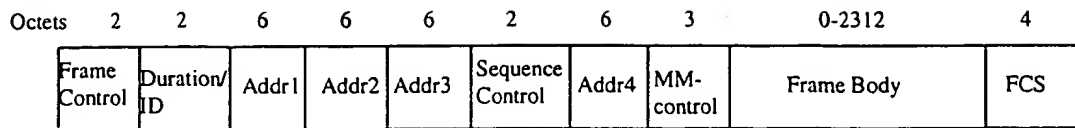
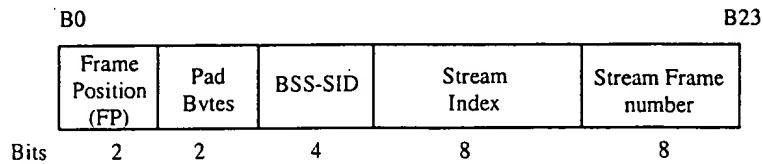


Figure 2



(a) Multimedia frame format



(b) Multimedia Control field (proposed new field)

Figure 3

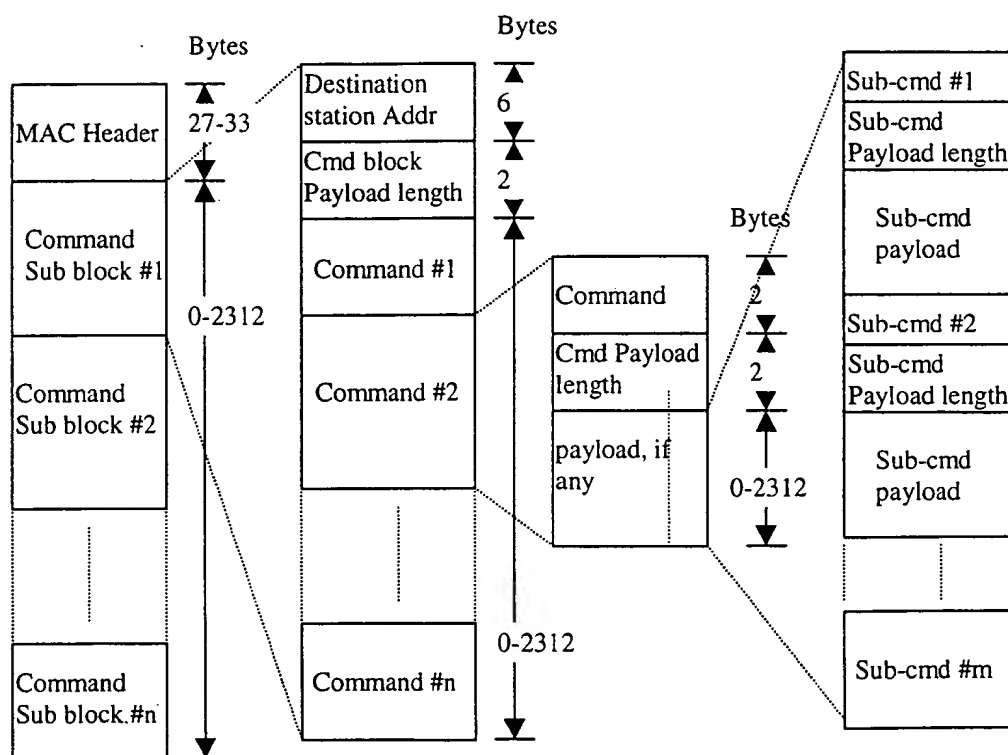


Figure 4. Structure of the multimedia commands and sub-commands in MM-command frame

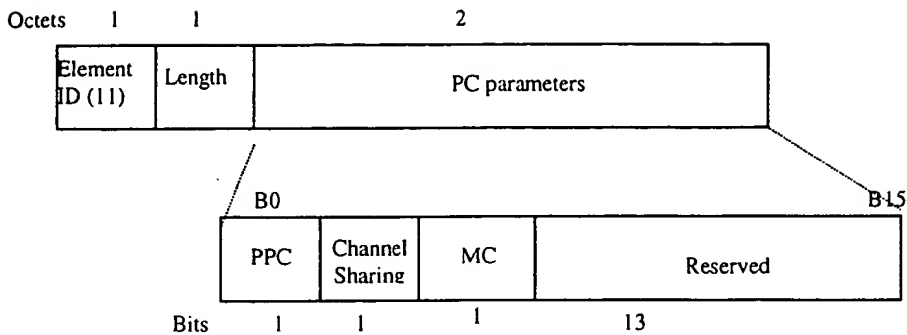


Figure 5

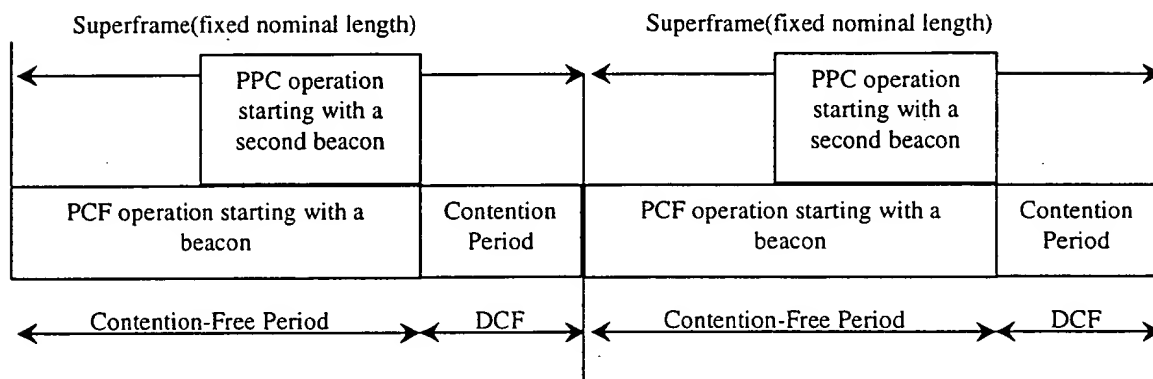


Figure 6. Operation PPC within the CFP of a PC

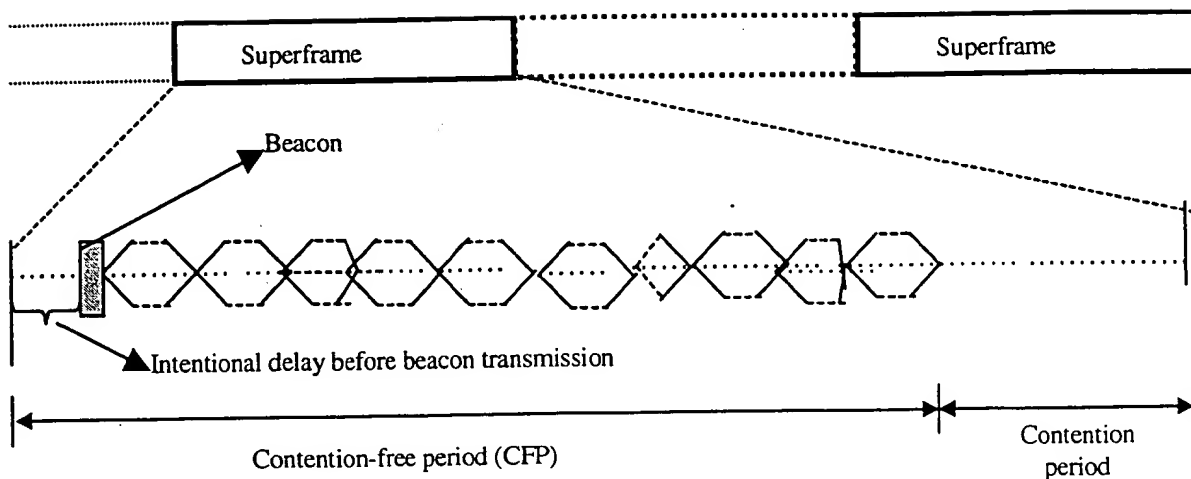


Figure 7. Transmissions of each MMSs in a superframe

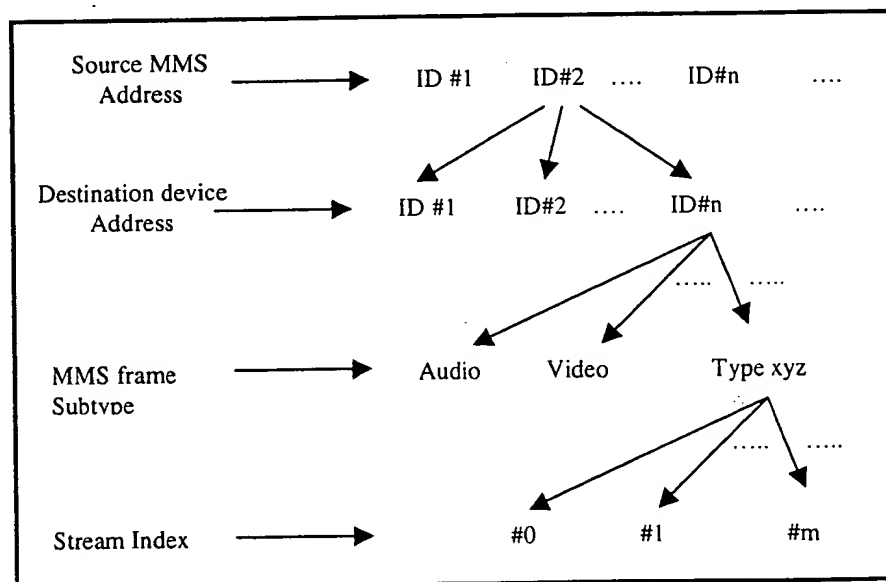
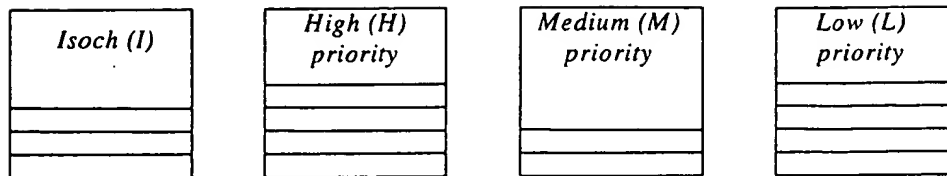
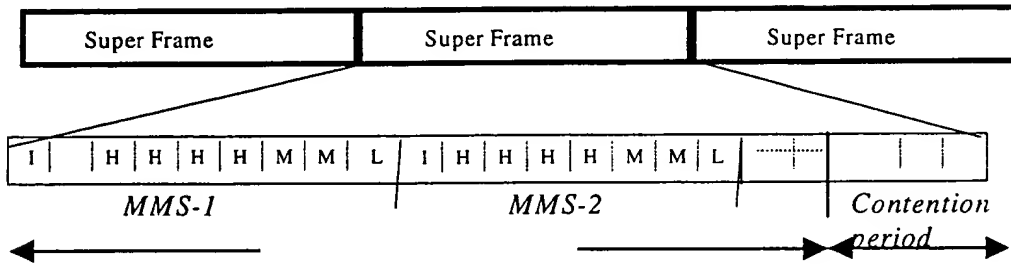


Figure 8. Proposed Data stream hierarchy



(a) Data for packets are collected and sorted into buffer queues according to payload differentiation



(b) Packets are then transmitted according to an arbitration scheme

Figure 9. Proposed Priority Services for multimedia streams

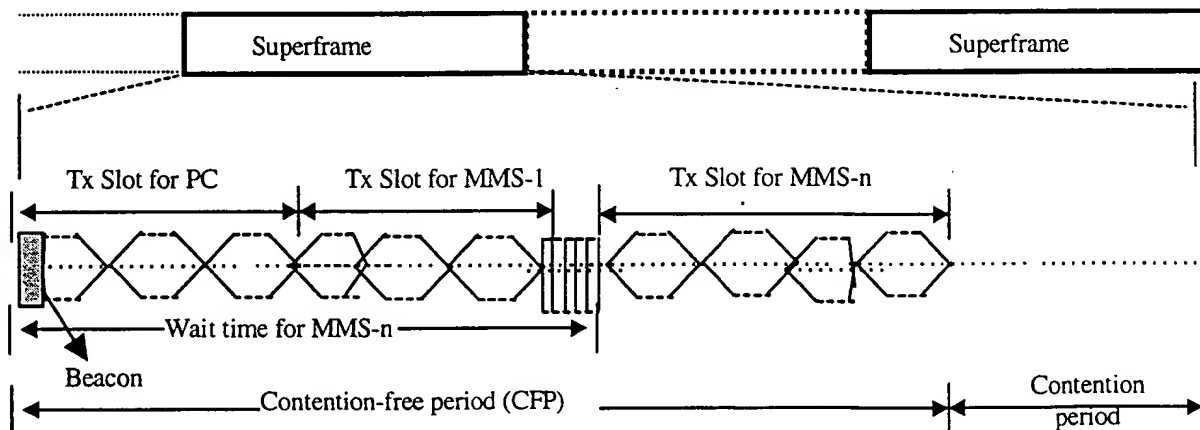
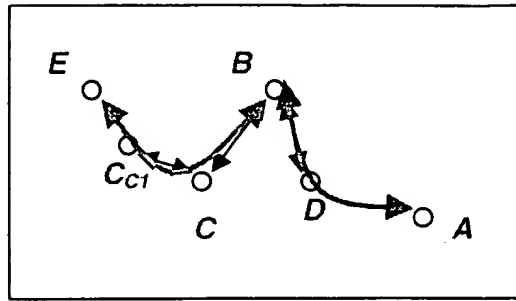


Figure 10. Transmissions of each MMSs in a superframe



- BSS B comes up first and assumes all zero BSS-SID
- BSS D comes up next and requests bandwidth sharing with B
- BSS C comes up next and requests bandwidth sharing with B and D
- BSS A comes up:
 - BSS B can not detect A and/or A can not detect B
 - BSS D detects both and reports to B that A is operating in the same channel
 - B assigns D to be proxy coordinator and sends response to the request of D for bandwidth sharing.
 - D acts as tunnel between B and A.
 - A gets a invitation from B to join the already group existing group of B, C and D.
 - A gets assigned an BSS-SID and the synchronization parameters with respect to D's transmission of beacon.
- BSS E comes up:
 - Except C_{cl}, no other device can detect E and or otherwise
 - E tries to use another channel and fails
 - There is only one option to E and that is to join the same group formed above, else it will be interfering with C_{cl}.
 - C_{cl} detects request from E and reports to C that E is operating in the same channel
 - C tunnels the information to B.
 - B assigns C_{cl} to be proxy coordinator and sends request to C for permission.
 - C agrees to the request and provides the permission.
 - C and C_{cl} together form a tunnel between B and E.
 - E gets assigned an BSS-SID and the synchronization parameters with respect to C_{cl}'s transmission of first packet.

Figure 13. Operation of a proxy-coordinator